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| APPLICATION NO.        | FILING DATE .                         | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------|---------------------------------------|----------------------|---------------------|------------------|
| 10/674,432             | 10/01/2003                            | Ananth Madhavan      | 2566-210            | 5660             |
| 6449<br>ROTHWELL       | 7590 07/10/2007<br>FIGG, ERNST & MANB | EXAMINER             |                     |                  |
| 1425 K STREET, N.W.    |                                       |                      | AKINTOLA, OLABODE   |                  |
| SUITE 800<br>WASHINGTO | N. DC 20005                           | ART UNIT             | PAPER NUMBER        |                  |
|                        | ,                                     |                      | 3691                |                  |
|                        |                                       |                      |                     |                  |
|                        |                                       | •                    | NOTIFICATION DATE   | DELIVERY MODE    |
|                        |                                       |                      | 07/10/2007          | ELECTRONIC       |

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

|  |   |                        | Application No. App |            | pplicant(s)     |  |  |  |
|--|---|------------------------|---------------------|------------|-----------------|--|--|--|
| Office Action Summary  |   | 10/67                  | 4,432               | MADHAVAN E | MADHAVAN ET AL. |  |  |  |
|  |   | Exam                   | iner                | Art Unit   |                 |  |  |  |
|  |   |                        | de Akintola         | 3691       |                 |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |                        |                     |            |                 |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                        |                     |            |                 |  |  |  |
| Status   | ·   |                        |                     |            |                 |  |  |  |
| 1) 又   | Responsive to communication(s) filed  | on 19 <i>April 200</i> | 7.                  |            |                 |  |  |  |
| , —  | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.  |                        |                     |            |                 |  |  |  |
| 3)   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is             |                        |                     |            |                 |  |  |  |
|  | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                                   |                        |                     |            |                 |  |  |  |
| Disposition of Claims  |   |                        |                     |            |                 |  |  |  |
| 4)⊠  | 4)⊠ Claim(s) <u>1-51</u> is/are pending in the application.   |                        |                     |            |                 |  |  |  |
|  | 4a) Of the above claim(s) is/are withdrawn from consideration.  |                        |                     |            |                 |  |  |  |
| 5)   | 5) Claim(s) is/are allowed.   |                        |                     |            |                 |  |  |  |
| 6)⊠  | S)⊠ Claim(s) <u>1-51</u> is/are rejected.   |                        |                     |            |                 |  |  |  |
| •  | Claim(s) is/are objected to.  |                        |                     |            |                 |  |  |  |
| 8)□  | Claim(s) are subject to restriction   | on and/or election     | on requirement.     |            |                 |  |  |  |
| Applicati  | on Papers   |                        |                     |            |                 |  |  |  |
| 9)   | The specification is objected to by the I   | Examiner.              |                     |            |                 |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |   |                        |                     |            |                 |  |  |  |
|  | Applicant may not request that any objection  |                        |                     |            |                 |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |                        |                     |            |                 |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |                        |                     |            |                 |  |  |  |
| Priority ι   | ınder 35 U.S.C. § 119   |                        |                     |            |                 |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  |   |                        |                     |            |                 |  |  |  |
|  | 1. Certified copies of the priority documents have been received.   |                        |                     |            |                 |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |                        |                     |            |                 |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  |   |                        |                     |            |                 |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |                        |                     |            |                 |  |  |  |
|  |   |                        |                     |            |                 |  |  |  |
| Attach   | t(c)  |                        |                     |            |                 |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)   |   |                        |                     |            |                 |  |  |  |
| 2) Notic   | e of Draftsperson's Patent Drawing Review (PTC  | Paper                  | lo(s)/Mail Date     |            |                 |  |  |  |
|  | 3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date  5) Notice of Informal Patent Application  Other: |                        |                     |            |                 |  |  |  |
|  |   |                        |                     |            |                 |  |  |  |

Art Unit: 3691

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 6-8, 12-13, 25-27, 40-41 and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noser et al (USPAP 20030225660) ("Noser") in view of Keim et al ("The Cost of Institutional Equity Trades", Financial Analyst Journal, 1998) ("Keim").

Re claims 1, 6-8, 12-13, 19-21, 25-27, 40-41 and 47-51: Noser teaches a method for creating a database, said method comprising: collecting security transaction data for a pre-selected period of time (section 0007), for a plurality of investment investors (section 0007), said transaction data including identity of securities being traded, transaction order sizes, execution prices and

Art Unit: 3691

execution times (sections 0085-0086); grouping said transaction data into a plurality of orders (section 0007); Noser does not explicitly teach calculating a plurality of cost benchmarks for each of said plurality of orders; estimating transaction costs for each investment institution relative to said cost benchmarks; and storing said data. Keim teaches these limitations on pages 9-11. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Noser to include these features in order to provide "best execution" for investors.

Claims 2-5, 9-11 and 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noser in view of Keim as applied to claim 1 above, and further in view of Efron (Regression percentile using asymmetric squared error loss, 1991) (Efron)

Re claims 2-5, 9-11 and 42-46: Noser does not explicitly teach the use regression analysis using percentiles. Efron teaches regression percentiles (see entire document). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Noser to use regression analysis on the variables (transaction costs). One would have been motivated to do this because regression analysis in well known in the statistical art for evaluating the relationship between one variable (termed the dependent variable) and one or more other variables (termed the independent variables). Examiner notes that Keim also teaches regression analysis.

Claims 14, 19-21, 25-27, 32-34 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noser in view of Keim as applied to claim 1 above, and furher in view of Bettis et al (USPN 7016872) (Bettis).

Art Unit: 3691

Re claims 14, 19-21, 25-27, 32-34 and 38-39: Noser does not explicitly teach ranking a first investment institution of said plurality of institutional investors against said plurality of investment institutions for at least one of a number of factors. Bettis teaches ranking a first investment institution of said plurality of institutional investors against said plurality of investment institutions for at least one of a number of factors (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Noser to include this step as taught by Bettis. One would have motivated to do so in order to evaluate the performance of the investors/traders.

Claims 15-18, 22-24, 28-31, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noser in view of Keim, in view of Bettis as applied to claim 14 above, and further in view of Efron.

Re claims 15-18, 22-24, 28-31 and 35-37: See claims 2-5 analyses, supra.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olabode Akintola whose telephone number is 571-272-3629. The examiner can normally be reached on M-F 8:30AM -5:00PM.

Art Unit: 3691

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

HANI M. KAZIMI PRIMARY EXAMINER